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(71) Applicant (for all designated States except US): **THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US).**

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PFEIFFER, Curtis, D. [US/US]; 5001 Dale, Midland, MI 48642 (US). FRAWLEY, Nile, N. [US/US]; 4613 Lund Drive, Midland,**

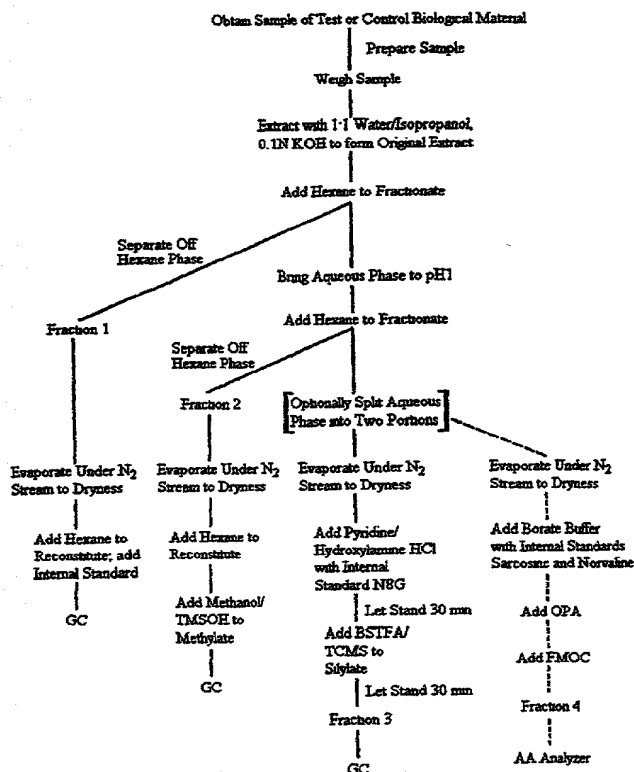
**MI 48642 (US). PETERS, Thomas, L. [US/US]; 2200 Jenkins, Midland, MI 48642 (US). SAVICKAS, Philip, J. [US/US]; 2526 Whippoorwill Hollow, Midland, MI 48642 (US). ALBERS, David, R. [US/US]; 1314 Whitehall, Midland, MI 48642 (US). GLUCK, Steven, J. [US/US]; 306 Arrowwood Street, Lake Jackson, TX 77566 (US). NICHOLSON, Lawrence, W. [US/US]; 2147 E. Brooks Road, Freeland, MI 48623 (US). ESQUIVEL, H., Jose, B. [US/US]; 613 Crescent Drive, Midland, MI 48640 (US).**

(74) Agent: **SCOTT, Mark, S.; Intellectual Property, P.O. Box 1967, Midland, MI 48641-1967 (US).**

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(54) Title: **METHOD FOR CHEMICAL ANALYSIS OF BIOLOGICAL MATERIAL**



(57) Abstract: A chemical analysis method for determining chemically related differences between subject biological material such as genetically modified plant material and control biological material such as genetically unmodified plant material, which method includes at least the following six steps. The first step is to contact the subject biological material with a fluid extractant, such as a mixture of water, isopropanol and potassium hydroxide, to produce a fluid extract of the subject biological material. The second step is to contact the control biological material with the fluid extractant to produce a fluid extract of the control biological material. The third step is to chromatograph the fluid extract of the subject biological material, for example, gas or fluid chromatography, to produce a chromatogram of the fluid extract of the subject biological material. The fourth step is to chromatograph the fluid extract of the control biological material to produce a chromatogram of the fluid extract of the control biological material. The fifth step is to determine the differences between the chromatograms, for example, by using the method of United States Patent 5,592,402, to identify at least one outlier peak. The sixth step is to determine the chemical identity of the outlier peak, for example, using gas chromatography/mass spectroscopy analysis of the outlier peak.

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